

NOVEMBER 1994

*Field Naturalists
Club of Ballarat
Incorporated*

EXCURSION - NEWS SHEET

Meeting Nov 4 Stella Bedggood Memorial Lecture. Victoria's Polar Dinosaurs -
Dr Tom Rich (Venue: St Cuthbert's Hall, Elliot St., Ballarat)

Meeting Dec 2 Mosses, ferns and liverworts - Mr John Jelbart

Excursion Nov 6 Paddy Ranges - Maryborough FNC

Excursion Dec 4 Mt Cole Family Excursion and Picnic Tea



President: Mr J Gregurke Ph:
Secretary: Mrs M Rotheram
Treasurer: Mr G Binns
Editor: Mr A Dyson

Meetings as specified are held
at the School of Mines and
Industries, Lydiard Street Sth,
Art Building, commencing at 7.30
p.m. EXCURSIONS, AS SPECIFIED,
COMMENCE FROM BOOK CITY, cnr
STURT AND ARMSTRONG STS, BALLARAT
at 9.30 a.m. for FULL DAY OUTING:
OR at 1.30 p.m. for HALF DAY.

Field Reports

Carol Hall: Marsh Crake and Restless Flycatcher at Lake Wendouree. She has enjoyed watching Silvereyes in her garden.

Ken McDonnell: Black-shouldered Kites in the vicinity of the Crematorium, also Crested Pigeons. At Mt. Beckworth, he saw White-browed Babblers, a pair of Little Eagles and a Brolga soaring on updraughts.

The club noted that four Peregrine Falcon chicks had hatched in the city of Melbourne this year (as shown on TV).

Greg Binns: Peregrine Falcons were not in attendance at the Dereel nest site - the first time that they have been absent for many seasons. The area was becoming built up and it was hoped that nothing untoward had happened to them. In the nearby bushland, Nodding Greenhoods were blooming in profusion. Reed Warblers and Crested Grebe at Lake Wendouree, and Spotted Pardalotes in his garden.

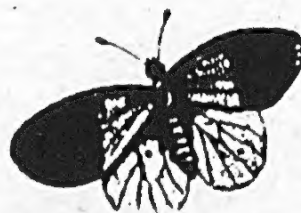
Alan Morrison: Peregrines were sitting at Devil's Kitchen again and the nest at Mount Cole had three eggs. He saw four species of waders near Killarney (Warrnambool), including ten Pied Oystercatchers, six of which were dancing in a kind of ritual.

Margaret Rotheram: Watched Peregrines taking turns at brooding on the Devil's Kitchen nest.

Florence Williamson: Two young Red Wattlebirds with their parents in her garden in Ligar St. Ballarat North.

Tony Dyson: In the Gammon Ranges in South Australia in September, Yellow-footed Rock Wallabies; also four Wedgetailed Eagles feeding on a "road kill".

Helen Burgess: A hillside of Boronia in full flower near Newstead; also many Caladenia carnea and some C. derulea near Campbelltown. Three Silvereyes gathering nectar from a camellia.



Diary Dates

Friday 18 November - Sunday 20 - FNCB Club Campout - see below

Sunday November 27 - Open Day at Mooramong. Meet at 1pm at Book City or at 2pm at Mooramong.

Neville Scarlett will speak on the Mooramong Grassland Project (as a preliminary study for the talk he will give the club at our February 1995 meeting) and Ranger Tim Barton will speak on grassland establishment and harvesting of native grasses.

There is likely to be a small charge for entry to Mooramong.

Tuesday 22 November, 7.30pm - FNCB Committee Meeting (at the Dyson's - Durham Lead).

FNCB Club Campout

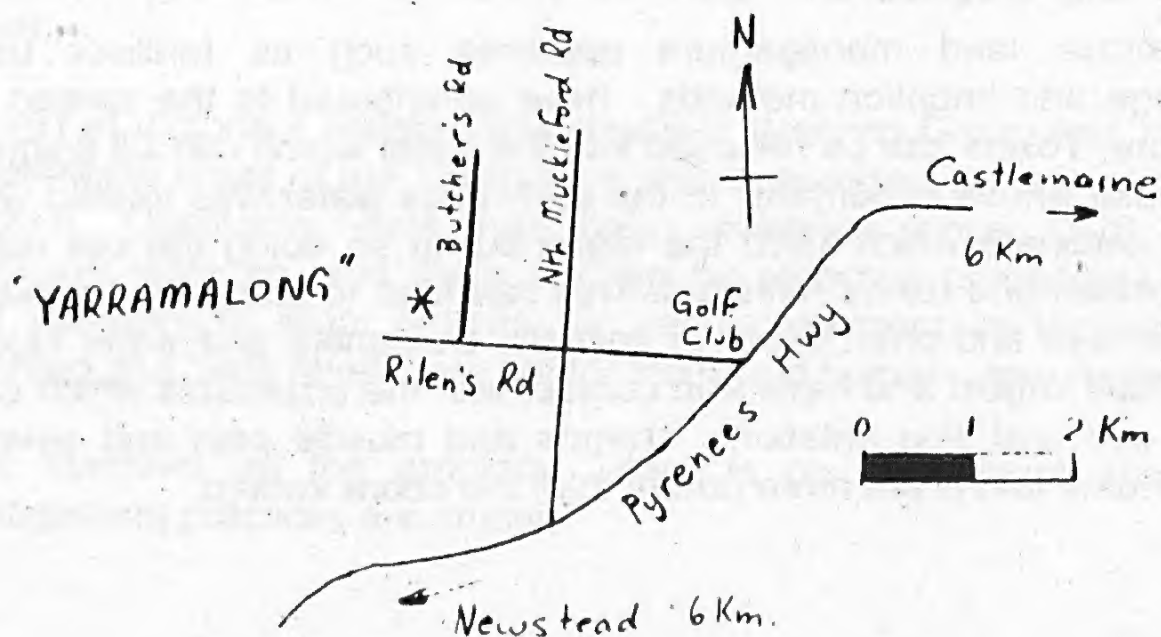
November 18-20, 1994

All club members and friends are invited to the Club Campout to be held at "Yarramalong", Rilen's Road, Muckleford. This is adjacent to the Muckleford Forest.

There is bunk room style accommodation with mattress, pillow, pillow case and bottom sheet provided. Supply your own blankets or sleeping bag. There is a kitchen and lounge area to allow us to cater for our meals, and a barbecue and campfire outside. Bring your own food; Saturday and Sunday lunch will be in the bush.

Saturday: Kalimna Park on the edge of Castlemaine. Mt Alexander - a granite area east of Harcourt.

Sunday: Muckleford Forest lead by Ern Perkins, Castlemaine FNC.



Blue-green algae

Gary Bennison spoke on this subject at our September meeting. Gary is a biologist with a management position at the Melbourne Water Laboratories. He was working for the Rural Water Commission when he first experienced the problems of blue-green algae.

Blue-green algae (also called **cyanobacteria**) are natural inhabitants of many inland waters, estuaries and the sea. The algae cells are much simpler than those of other algae - in fact they are more like bacteria. The blue-green algae is extremely adaptive and it is believed to have been in existence for nearly two billion years. It is one of the original forms of plant life.

Five types of the algae have been identified of which at least four are present in Australian waters. 1991/2 figures indicate that the problem is still limited in WA - most outbreaks in Australia are in the eastern states (including Tasmania). In that period there were 36 outbreaks in Victoria which affected 18 town water supplies, 7 of these needed isolation and treatment. It is also a problem in such places as the USA, Chile, UK, Hungary and the Baltic Coast.

Blue-green algal blooms are very common in summer in still water such as lakes, ponds and reservoirs. Algae multiply rapidly in the warmer months and the water becomes green, blue-green or greenish-brown. During calm weather the blue-green algae can rise to the surface to form a scum. Blooms do not occur in strong flowing streams.

In Australia land management practices such as fertiliser use, sewerage and irrigation methods, have contributed to the spread of the algae. Toxins can be released into the water which can kill animals and cause illness in humans. In the early days water was treated with copper sulphate which killed the algae but in so doing the cell walls were broken and toxins released. This can lead to staggers, tumours, liver damage and often death in animals. Swimmers and water skiers may inhale, ingest and have skin contact with the organisms which can cause eye and skin irritations, cramps and muscle pain and severe fever. Some toxins are more potent than the cobra venom.

Several early notings of probable algae-related events have been made - in 1853 there were severe stock losses along the Murray River, and in 1878 at Lake Alexandrina. In 1957 on Palm Island (Queensland), humans suffered illness from waters which had been treated with copper sulphate. Gary showed a video based upon the NSW Local Government Phosphorus Action Plan. This emphasised the devastating effect of blue-green algae on the Darling River in the summer of 91/92. At this time a thousand kilometres stretch of the river became an unmoving sludge of algal bloom. Fish, wildlife and plantlife suffered. Army water treatment plants were set up. Crisis meetings were held. The principal cause was identified as an overabundance of phosphates and chemicals from farm fertilisers, industrial factories and mills. Irrigation brought about a lowering in volume and flow - there were ideal conditions for algae to flourish - high temperatures, high nutrient content and slow waters. (In 1994 the Darling is again in trouble).

What's being done?

We are now more aware of the causes. There is the possibility of successful litigation. Farm, industrial and water control practices are improving and management programs aim to reduce the intensity and occurrence of problems.

In the Albury/Wodonga (Murray River) area and Whittlesea (Plenty River), people are using low phosphorus detergents.

Research continues at water storages. Gary showed slides of Lake Mokoan where water control levels are constantly monitored. There is experimentation with fish and plant life using their tendencies to add to nutrients, remove nutrients, act as filters and compete with algae growth.

In 1991 in Victoria a Nutrient Management Working Group was set up to determine areas of risk in the state and to ascertain the extent of the problem. Qualitative data has been available since 1928, and becoming more so, and there are regular reporting procedures. The total numbers of algal blooms for each catchment in Victoria are recorded and "safe levels" are set for stock and human consumption.

Gary summed up the problem. There is no short term solution. Management practices are crucial.

Brisbane Ranges Excursion

Sunday 9th October,

1994

The first stop on our Brisbane Ranges National Park excursion was on Durdiwairah Road near the Upper Stony Creek Reservoir. As people stepped from their cars, the calls of Striated Pardalote and Grey Shrike-thrush were heard and the birds quickly found in the Swamp Gums along the road. A variety of waterbirds were observed on the Reservoir. These included Black Duck, Australasian Shelduck and Grey Teal. With the aid of a telescope the diving birds were identified as Australasian Grebe, Great Cormorant and Little Black Cormorant. The brilliantly coloured Yellow-tufted Honeyeaters put on an acrobatic display above the reed filled swamp. The mournful call of the Little Grassbird indicated its presence and good views were obtained when the bird came to the edge of the swamp.

As we moved down the road more bush birds were located. On the sandy soil blown out of the swampy land over many years a variety of plants were found in flower - Early Nancy, Dwarf, Tall and Nodding Greenhoods, Running Postman, Common Flatpea and Austral Indigo. Keen eyes spotted a Koala high in a Manna Gum. When we returned to the cars several hundred Coot, previously hidden around a corner, covered the reservoir.

While eating lunch a Wedge-tailed Eagle soared down a gully. The site of an old gravel pit was looked at after lunch. A sparse cover of herbs and shrubs was revegetating the area. As we dropped from flat gravel pit area in to a gully we found Mosquito Orchid, *Acianthus remiformis*, and Blue Caladenia, *Caladenia caerulea*, were found flowering. Other orchids found in the undisturbed soil were Tiger Orchid and Green Comb Spider Orchid. An interesting find was the exoskeleton of a caterpillar which was surrounded by the pupal cases of the wasp which had parasitised the caterpillar. Dead grasstrees showed that cinnamon fungus is a problem. The fungus attacks the fine roots of many native plants, the roots rot and the remaining roots are not able to absorb enough water for the plant.



At the corner of Marshals Road and McLeans Highway it was interesting to compare areas which had been burnt at various times. Silky Hakea, *Hakea sericea*, had regenerated from the below ground parts. Many leaves of Helmet Orchids were growing over the ground. Good stands of the endemic Steiglitz Grevillea, *Grevillea steiglitziana*, and Golden Grevillea, *G. chrysophaea*, were flowering in this area.

The last stop for the afternoon was Stony Creek picnic area. We followed a gully looking for a Powerful Owl which had recently been seen by the Geelong Field Naturalists. Also searching for this bird was a group of Japanese bird-watchers lead by Ken Simpson. The bird proved elusive but we found the regurgitated pellets containing fur, whiskers, bones and claws of possums. Good views of the Fan-tailed Cuckoo were enjoyed along with its downwards trill which first announced its presence.

Thanks to Frank Harrap for carefully planning the trip to several interesting parts of the Brisbane Ranges. We were rewarded with a birdlist of about 50 species and many plants in flower.
JG.



Red-necked Wallaby - *Macropus rufogriseus*

Order - Diprotodontia, Superfamily - Macropodoidea,
Family - Macropodidae

This is the common large wallaby of the forests of South Eastern Australia, including Tasmania and the larger islands around Tasmania and in the Bass Strait. It is essentially a grazing animal subsisting on grasses and herbs. It is found in eucalypt forests where there are open spaces, and in tall coastal heaths. Clearing has reduced its numbers although it is still common to abundant in most parts of its range.

The oestrus cycle is approximately 33 days and the gestation about 30 days. Females are seldom without young in the pouch. There is up to 12 months between mating and birth. The pouch life is about 280 days and the young can be suckled from 12 to 17 months.

The Red-necked Wallaby is essentially a solitary animal but it may occur in such high density that 30 or more may be seen grazing on a patch of good pasture. If disturbed, however they do not behave as a unit but scatter in all directions in panic.

The species is protected by law in all states in which it occurs, but it may be killed under licence as a pest on crops in Queensland, and in Tasmania there is an open season. The skins are used in a small export trade.

It is a common wallaby and should be plentiful in bushland around Ballarat. There are two subspecies.

Elfin.

